93-02349/

agri-fax Livestock Alberta AGRICULTURE

July 1992

Agdex 420/22-2

Pregnancy Checking of Cows

Why pregnancy check?

Early and reliable pregnancy checking is an important component of a total beef herd management program. However, at present less than 30 per cent of Alberta's cattle producers do pregnancy checks. The advantages of pregnancy checking are well recognized and it is surprising that more producers don't take advantage of this management tool. Studies have determined that the cash cost of overwintering a cow is about $250. This cost includes feed, bedding, veterinary fees, interest and the producer's labor. More Alberta cow-calf operators each year feel that it makes good economic sense to spend the $1.00 to $4.00 per cow to have a veterinarian check all cows and heifers.

The results of pregnancy checking can be used to make herd management decisions. For example, an open cow may be culled immediately or fed separately to be sold later at a heavier weight or on a stronger market. More importantly, pregnancy checking between 35 and 50 days after the bulls are removed from the herd allows early detection of herd problems with infertility, repeat breeding or infectious venereal disease. In these situations, timing is important so that a diagnosis can be made and potential financial losses can be minimized.

How to pregnancy check

There are several methods of checking pregnancy. These include:

- observing cows for return to heat
- examining the reproductive tract through the rectum
- analyzing of blood or milk for high levels of the hormone progesterone
- using probes to measure electrical resistance of vaginal mucus
- examining the uterus with ultrasound.

All methods have advantages and disadvantages. The first two in the list are the methods used most often.

Checking cows for heat

Watching cows for return to heat after breeding is the most common method of pregnancy detection used in Alberta. Unfortunately, this method is the most unreliable for several reasons. From five to 10 per cent of pregnant cows can show signs of heat at regular intervals for up to eight months of pregnancy. The sale of one of these cows could result in the loss of a good animal from the breeding herd.

Furthermore, some cows with ovarian cysts, reproductive infections or carrying mummified fetuses may not show signs of heat and would be presumed pregnant until they started to cycle again. By this time, most other cows would be in later stages of pregnancy. Early detection and removal of these cows from the herd would help save on feed expenses.

Another disadvantage is that observing cows for signs of heat is time consuming for the cattle producer at a time of the year when other work such as harvesting hay or grain is also important. The result is that the time dedicated to watching cows is usually inadequate. Consequently, pregnancy checking by observation for return to heat is not a very accurate method.

Palpation

Examination, or palpation, of the reproductive tract through the rectum has been used for pregnancy diagnosis by veterinarians for over 90 years. A positive examination is based on the veterinarian feeling:

- changes in uterine size and location
- thinning of the uterine wall
- detection of fluid in the uterus
- changes in the size and flow of the artery
- supplying the uterus
- the presence of a corpus luteum on the ovary.

These changes occur within 30 to 35 days from the beginning of the pregnancy.

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Additional tests that can be done by palpation through the rectum include:

- detection of the membranes that surround the developing fetus
- palpation of the placenta (afterbirth)
- palpation of the fetus itself.

The stage of pregnancy can be approximated with reasonable accuracy until the fifth month by judging the size of the developing fetus and comparing this to accepted normal size ranges. After the fifth month the uterus and fetus are usually deep in the abdomen and out of reach making judgement of age a more difficult task.

There are many advantages to rectal palpation. It is a safe method for the veterinarian and the cow as long as the cow is restrained in a good handling system. The procedure is not expensive, the examination can be done quickly and results are available immediately. Accuracy is generally excellent but varies a little with the condition of the cow and experience of the veterinarian. It is important to remember that failure to produce a calf after a positive pregnancy diagnosis does not mean the diagnosis was in error. The possibility of an undetected abortion must always be considered.

A final concern about rectal palpation is the possibility of disease transmission if rectal sleeves are not changed after each use. Studies using large numbers of cows have been unable show that this occurs.

Conclusion

Producers should expect no more than five per cent of their cows to be open after a 63 day breeding season. Examination by rectal palpation is the most practical and reliable way to detect pregnancy in cattle as soon as 35 to 50 days after breeding. Pregnancy checking this soon after removal of the bull from the breeding group allows the producer to shorten the calving season and make economic decisions about non-pregnant animals. Along with pregnancy checking, other management practices can be adopted to improve production efficiency including:

- bull evaluation
- feed analysis and ration formulation
- separate management of replacement heifers
- vaccination to prevent reproductive diseases.

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1992 07 3M